BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Improvements to drains of vayunandhan layout main road (LHS) in kempapura in ward No.07 Byatarayanapura.

MEASUREMENTS SHEETS

Estimate cost: 25.00 **lakhs**

Ward 7 byatarayanapura

007-18-0000137 (CP1771)

P. Vijay Babu.

(Nandhi Enterprises)

W.O. No. 211/10.3.2020

1st & final Bill

BRUHAT BANGALORE MAHANAGARA PALIKE
KODIGEHALLI SUB DIVISION- WARD 7 BYATARAYANAPURA

Agency **Sri.P.Vijaya Babu**
Name of work:Improvements to drains of vayunandhan layout main road (LHS) in kempapura in ward No.07 Byatarayanapura
Estimated Cost:- 25.00 Lakhs

Sl NO	Description of work	No	L	B	D	QTY		
1	Earthwork excavation by manual means in rodinary soil involving an average horizontal throw upto 2 m and an average lift upto 1.5m, excavated surafce levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking clods complete as per specifications							
	LHS							
	0-30	1	30.00	0.90	1.00	27.00		
	30-60	1	30.00	0.90	1.00	27.00		
	60-90	1	30.00	0.90	1.00	27.00		
	90-120	1	30.00	0.90	1.00	27.00		
	culvert	1	8.00	0.00	0.00	0.00		
	128-158	1	30.00	0.90	1.00	27.00		
	158-188	1	30.00	0.90	1.00	27.00		
	culvert	1	7.50	1.60	1.00	12.00		
	Culvert	1	8.00	1.60	1.00	12.80		
	Culvert	3	6.00	1.60	1.00	28.80		
	Rain water units	8	0.50		1.70	**6.80**		
					TOTAL	**222.40**		
					Qty Ltd to	**221.00**		

Certified
6/6/2020

NDD
AE(ASST)
06/06/2020

Assistant Engineer

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

	Providing and laying in position plain cement concrete of nominal mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal machine mixed, conrete laid in layers not exceeding 15 cms. Thick well compacted in foundation and plinth, including cost of all materials labour, HOM of machinery, curing complete as per specification						
	RCC DRAIN BOTTOM						
	LHS						
	0-30	1	30	0.9	0.15	4.05	
	30-60	1	30	0.9	0.15	4.05	
	60-90	1	30	0.9	0.15	4.05	
	90-120	1	30	0.9	0.15	4.05	
	culvert	1	8	0	0.15	0.00	
	128-158	1	30	0.9	0.15	4.05	
	158-188	1	30	0.9	0.15	4.05	
	culvert	1	7.5	1.6	0.15	1.80	
	Culvert	1	8	1.6	0.15	1.92	
	Culvert	3	6	1.6	0.15	4.32	
	Below kerb						
	0-30	1	30	0.2	0.15	0.90	
	30-60	1	30	0.2	0.15	0.90	
	60-90	1	30	0.2	0.15	0.90	
	90-120	1	30	0.2	0.15	0.90	
	culvert	1	8	0.2	0.15	0.24	
	128-158	1	30	0.2	0.15	0.90	
	158-188	1	30	0.2	0.15	0.90	
	Drain bottom correction						
	188-218	1	30	0.6	0.4	7.20	
	218-248	1	30	0.6	0.35	6.30	
	248-308	1	30	0.6	0.3	5.40	
	308-338	1	30	0.6	0.25	4.50	
	338-360.5	1	20	0.6	0.25	3.00	
		1	22.5	5	0.15	16.88	
						81.26	
					Qty Ltd to	**81.09**	

Assistant Engineer

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

3	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs, with 20 mm and down size graded granite matel coarse aggregates @ 0.69 cum and fine aggragtes @ 0.459cum, machine mixed concrete laid in layers not eceeding 15 cms, thick well compacted, in foundation, plinth and cills including cost of all materials, labour HOM machinery curing complate as per specifications							
	Culvert Bottom	No	L	B	D			
	culvert	1	7.5	0.6	0.15	0.68		
	Culvert	1	8	0.6	0.15	0.72		
	Culvert	3	6	0.6	0.15	1.62		
	Culvert coping side wall							
		2	7.5	0.45	0.1	0.68		
		2	8	0.45	0.1	0.72		
		6	6	0.45	0.1	1.62		
						6.03		
				Qty Ltd to		5.04		

NDD
AE(NT)
26/6/2020

PMC

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike

4	Providing and constructing granite /trap/basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms hign, bond stones at two m apart in each course including cost of materials, labour, curing etc., complete as per specifications.							
	Culvert Side wall	2	7.5	0.45	0.75	5.06		
		2	8	0.45	0.9	6.48		
		6	6	0.45	0.9	14.58		
						26.12		
				Qty Ltd to		**25.92**	NDP AE(W-I) 27/6/2020	
5	Providing ruled pointing to coursed stone masonry with cement mortar 1:4, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications cement mortar 1:4							
	Culvert Side wall	2	7.5		0.75	11.25		
		2	8		0.9	14.40		
		6	6		0.9	32.40		
						58.05		
				Qty Ltd to		**43.20**	NDP AE(W-I) 27/6/2020	
10	Providing and fixing 20 cm thick pre cast RCC covering slab using reinforced cement concrete M 20 mix with stone aggregate 20 mm and down size including centring shuttering reinforcement and bar bending machine mixed concrete laid in layers not exceeding 15 cm thick wellcompacted cost of all materials labour curing comlete as per specification							
	covering slab	14	0.6	1.8		15.12		
		13	0.6	1.8		14.04		
		13	0.6	1.8		14.04		
						43.20	NDP AE(W-I) 13/7/2020	

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Pa
Bangalore - 560

7	Providing TMT Steel Reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications							
				L	no of rods	le of u bar	Total length	
							10mm	8mm
	Main rod	0-30	1	30	375	1.65	618.75	
	distribution		1	30	8	30		240
		30-60	1	30	375	1.7	637.5	
			1	30	8	30		240
		60-90	1	30	380	1.7	646	
			1	30	8	30		240
		90-120	1	30	380	1.8	684	
			1	30	8	30		240

2586.25 960

PMC

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Divisio
Bruhat Bangalore Mananagar
Bangalore

		128-158	1	30	380	1.8	684	
			1	30	8	30		240
		158-188	1	30	380	1.8	684	
			1	30	8	30	1369	240
							3954.25	1440
							0.62 kg/cum	0.39kg/cum
							2451.635	561.6
							3013.235	**3.01**
8	Providing and removing Centering, shuttering, strutting, propping etc., for columns, pillars, piers, abutments, post and struts, square / rectangular slabs /side walls polygon in plan including cost of materials, labour complete as per specification and directions of the Engineer in charge							
	LHS							
	0-30	4	30.00		0.50	60.00		
	30-60	4	30.00		0.50	60.00		
	60-90	4	30.00		0.50	60.00		
	90-120	4	30.00		0.50	60.00		
	culvert	0	0.00		0.50	0.00		
	128-158	4	30.00		0.50	60.00		
	158-188	4	30.00		0.50	60.00		
		2	22.5		0.30	13.50		
					TOTAL	**373.50**		

Assistant Engineer

Assistant Executive Engineer

Assistant Executive En
Kodigehalli S
Bruhat Bangalore M
Bangalore - 60

6	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 Kgs with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.460 cum with superplastizers @ 3lts confirming to IS 9103-1999 RE affirmed - 2008 machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, stair case lintels, retaining walls return walls, walls(anythickness) including attached plasters columns piers abutments pillars posts struts butresses string or lacing courses parapets copings, bed blocks , plain windows cills fillets etc., including cost of all materials labour HOM of machinery curing complete as per specifications.							
	RCC DRAIN BOTTOM							
	LHS							
	0-30	1	30	0.9	0.15	4.05		
	30-60	1	30	0.9	0.15	4.05		
	60-90	1	30	0.9	0.15	4.05		
	90-120	1	30	0.9	0.15	4.05		
	culvert	1	8	0	0.15	0.00		
	128-158	1	30	0.9	0.15	4.05		
	158-188	1	30	0.9	0.15	4.05		
	Side wall							
	0-30	2	30	0.15	0.50	4.50		
	30-60	2	30	0.15	0.50	4.50		
	60-90	2	30	0.15	0.50	4.50		
	90-120	2	30	0.15	0.50	4.50		
	culvert	0	0	0.15	0.50	0.00		
	128-158	2	30	0.15	0.50	4.50		
	158-188	2	30	0.15	0.50	4.50		
	Drain bottom correction							
	188-218	1	30	0.6	0.10	1.80		
	218-248	1	30	0.6	0.10	1.80		
	248-278	1	30	0.6	0.10	1.80		
						56.70		
					Qty Ltd to	**54.81**		
9	Providing and fixing 10cms thick pre cast RCC covering slab using reinforced cement concrete M20 mix with stone aggregate 20mm and down size including centring shuttering reinforcement and bar bending machine mixed concrette laid in layers not exceeding 15 cm thick wellcompacted cost of all materials labour curing complete as per specfications							
	LHS							
	0-30	49	0.60	0.90		26.46		
	30-60	49	0.60	0.90		26.46		
	60-90	48	0.60	0.90		25.92		
	90-120	48	0.60	0.90		25.92		
	culvert							
	128-158	47	0.60	0.90		25.38		
	158-188	50	0.60	0.90		27.00		
				Sqm		157.14		

11	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 of size 450x200x400 mm and finished with CM 1:3 plastering and finishing cutting etc., complete							
	LHS							
	0-30	64				64		
	30-60	62				62.00		
	60-90	65				65.00		
	90-120	64				64.00		
	culvert	0				0.00		
	128-158	66				66.00		
	158-188	65				65.00		
				Sqm		386.00	NDP AE(NS) 13/7/2020	
12	Providing and applying ready mix priming coat over ocncrete / masonry, / asbestos cement sheet / plastered surfaces includding preparing the surface after thorougly cleaning of oil, grease, dirt and other foreign matter and sand papering including cost of materials, labour compelte as per specifications							
	LHS							
	0-30	64	0.45			28.8		
	30-60	62	0.45			27.9		
	60-90	65	0.45			29.25		
	90-120	64	0.45			28.8		
	culvert	0	0.45			0		
	128-158	66	0.45			29.7		
	158-188	65	0.45			29.25		
				Sqm		173.70	NDP AE(NS) 13/7/2020	

Certified 8/8

Certified 3/8

PMC

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kadigenahalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

13	Laying Reinforced cement concrete pipe NP2 / prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets complete as per specifications.							
		8	1.5			12		
				Sqm		**12**		
14	Providing 100mm and down size nominal size.							
		8	0.28		0.6	1.360	1.344	
				Sqm		**1.36**	1.34	
15	Providing40mm and down size nominal size.							
		8	0.28		0.4	0.90		
				Sqm		**0.90**		
16	Providing 20mm and down size nominal size.							
		8	0.28		0.4	0.90		
				Sqm		**0.90**		
17	Providing Fine aggrgate 2.36mm nominal size							
		8	0.28		0.3	0.68		
				Sqm		**0.68**		
18	Providing and fixing MS Grating 260x260 mm							
		42		nos		**42.00**		
19	Loading and unloading of stone boulder/stone aggregates/ sand/ kanker/ moorum. KSRRB M100-1:Placing tipper at loading point loading with front end loading, dumping turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter Qty as per Abstract Sheet No (1)							
				cum		221.00	NOP BE(Civil)	

Assistant Engineer
Ward No.07

Assistant Executive Engineer
Kodigehalli Sub division

Executive Engineer
Byatarayanapura Division

PMC

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092